<u>Remarks</u>

In the Office Action mailed March 16, 2004, Claims 1-7, 10-13 and 15-20 were rejected and claims 8-9, and 14 were objected to. Applicant respectfully traverses the rejections and requests reconsideration of the pending claims.

Specifically, the Office Action rejected claims 1, 7 and 10 under 35 USC 102(e) as being anticipated by Kang et al. (US Patent No. 5978440). The Office Action alleges that Kang et al. discloses the steps of: acquiring data corresponding to a number of horizontal slice images, extending through an object of interest [ref Figs 2 and 3, and 12]; defining a vertical region of interest from the data [Ref column. 7, lines 16 through column 8 line 5 and Fig 13(b)]; and constructing a vertical slice image based upon data falling within the vertical region of interest [Ref column 8, lines 8-11 and Fig 4 - s71].

The Office Action severely mischaracterizes the Kang et al. reference. Applicant concurs with the Office Action that Kang et al. discloses the step of 'acquiring data corresponding to a number of horizontal slice images, extending through an object of interest.' However, that is where the similarity between the Kang et al. disclosure and the present claims stop. Specifically, Kang et al. does not disclose the step of "defining a vertical region of interest from the data" nor the step of "constructing a vertical slice image based upon data falling within the vertical region of interest" as recited in independent claim 1.

In particular, there is no "vertical region of interest" whatsoever in Kang et al. The Office Action suggests that the "vertical region of interest" is a height plane spaced apart from the focal plane of the object by a distance, h. and the 'defining the vertical region of interest' is realized by calculating shifted vertical distances above and below the focal plane. A careful reading of the Kang et al. reference shows that the step of calculating shifted vertical distances above and below the focal plane is done for the purpose of creating a cross-sectional image of the arbitrary height plane which, like the focal plane, is a generally horizontal plane and not a vertical region of interest (See column 7, lines 23-27 and Fig 7). It is absurd to suggest that a vertical region of interest equates to a generally horizontal (or even angled) cross-sectional image.

In addition, independent claim 1 requires "constructing a ___vertical slice image___ based upon data falling within the vertical region of interest" *(Emphasis added)*. Nowhere in Kang et al disclosure is a vertical slice image constructed. The various embodiments disclosed in the Kang et al. reference show construction of cross-sectional images of height planes (i.e. horizontal images) or construction via synthesis of an angle image plane with angles up to 60 degrees.
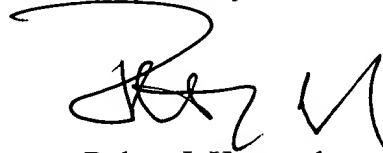
For the aforementioned reasons, and other differences between the claimed invention and the Kang et al. reference, any rejection based on the Kang et al. reference is inappropriate. Claims 7 and 10 are dependent claims depending from independent claim 1. Applicants respectfully traverse these rejections for the same reasons Kang et al. fails to anticipate claim 1 outlined above.

Claims 2-6, and 11-20 were also rejected under 35 USC 103(a) as being unpatentable over Kang et al. as applied to claim 1, in view of various secondary references. Applicants respectfully traverse these rejections for the same reasons Kang et al. fails to anticipate claim 1 outlined above.

No new matter has been added and no new claim fees are due since the number of pending claims does not exceed the number previously paid for. The Commissioner is also hereby authorized to charge to Deposit Account Number 20-0515 for any fee deficiency, or to credit this Deposit Account Number for any overpayment.

Applicant contends that the application is now in condition for allowance. A notice to that effect is earnestly solicited.

Respectfully Submitted,

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3